Direction de la Valorisation et des Partenariats Industriels

Service des Brevets et Inventions

N° de concertation [1] :	DECLARATION D'INVENTION N° [2] : 2003 - 62
Date	Date 12 Mai 2003
Signature	Signature Danielle BERNEMAN Chef du Service des Brevets & Inventions

1 *A remplir obligatoirement par le Relais de Valorisation (doc A)*
2 *A remplir obligatoirement par le Service des Brevets et Inventions*

1-DOSSIER ADMINISTRATIF

1-1 Titre de l'invention :

Plasmides comportant le cADN de la glycoprotéine S du coronavirus associé au Syndrome Respiratoire Aigu Sévère (SRAS).

1-2 Inventeurs :
Indiquer les noms dans l'ordre devant figurer sur le texte de la demande de brevet.

Inventeur:	Nom :	Prénoms :	Nationalité :
	van der WERF	**Sylvie Marie Françoise**	Française

Domicile : 112, allée de la Pointe Genète, 91190 Gif sur Yvette

Organisme employeur : IP et Université Paris 7 — Date du contrat de travail : ou du contrat de stage à l'IP : 01/04/199 0

Fonctions exercées : Chef d'unité & PRI

Adresse professionnelle :
- *Si campus Pasteur, nom du laboratoire et préciser si unité associée*
- *Si laboratoire extérieur, préciser coordonnées du responsable*

Unité de Génétique Moléculaire des Virus Respiratoires

DI N° 2003 – 62

2-SCIENTIFIC FILE (CONFIDENTIAL NOTICE)

2-1-2 Abstract

The molecular cloning of cDNA sequences of the major S glycoprotein of the coronavirus associated to Severe Acute Respiratory Syndrom (SARS) has been achieved. To this end a respiratory specimen referenced at the National Influenza Center (Northern-France) under N° 20031589 containing a large amount of SARS-CoV RNA was identified. This specimen consists of a sample of broncho-alveolar lavage fluid from a patient with SARS of the French Hospital in Hanoi, Vietnam.

RNA extracted from this specimen was subjected to reverse transcription using random hexameric oligonucleotides to produce cDNA fragments. These were next amplified by PCR using specific oligonucleotide primers designed according to the available SARS-CoV sequence. The sequence of the S glycoprotein of the SARS-CoV was thus amplified in the form of two overlapping DNA fragments each produced by two successive amplification reactions by making use of two nested primer sets (nested PCR). The amplicons thus produced were sequenced and cloned into plasmid PCRTMTOPO2.1 and the sequence of the cloned cDNAs was determined.

The cloned cDNA of the S glycoprotein could serve as the basis for the production of the S glycoprotein by means of various expression systems and for the production of antibodies by DNA immunization.

Date et signature : 12/05/2003